



City and County of the City of Chester.

ANNUAL REPORT

TO THE MAYOR, ALDERMEN AND
COUNCILLORS OF THE CITY AND
COUNTY OF THE CITY OF CHESTER

ON THE

HEALTH OF THE CITY

IN 1930,

BY

D. RENNET. M.B.E., M.D., D.P.H.,

Medical Officer of Health.

Public Health Committee (1929-30).

<i>Chairman</i>	-	-	-	ALDERMAN W. CARR.
<i>Deputy-Chairman</i>	-	-	-	ALDERMAN C. P. COCKRILL.

Members :

ALDERMAN S. R. A. WALL.	COUNCILLOR J. C. DALTON.
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„ C. SCONCE.	„ R. W. DUNN.
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„ ELSIE WELSH.	„ J. T. DUNNE.
COUNCILLOR E. E. ASHTON.	

THE MAYOR (COUNCILLOR J. MORRIS) is an *ex-officio* Member
of all Committees of the Council.

Public Health Officers.

WHOLE TIME.

Medical Officer of Health, School Medical Officer, Medical Superinten- dent Infectious Disease Hospital and Tuberculosis Officer	D. Rennet, M.B.E., M.D., D.P.H.
Assistant Medical Officer of Health and Assist. School Medical Officer, etc.	James W. Lobban, M.A., M.D., D.P.H.
*†Chief Sanitary Inspector, Food In- spector, Factory Acts Supervision ..	S. H. Moore, F.S.I.A., C.R.S.I.
*†Assistant Sanitary Inspector, and Food Inspector	W. B. Calder, M.S.I.A., C.R.S.I.
District Sanitary Inspector	J. Buckley, C.R.S.I.
Assistant District Inspector	H. J. Hewitt, M.S.I.A.
†Housing Inspector (holds also Meat Inspection Certificate)	M. G. H. Tresidder, C.R.S.I.
† Abattoir Superintendent	J. H. Withington, M.S.I.A.

Public Health Officers—continued.

Health Visitors, Maternity and Child Welfare, Tuberculosis, Care of the Blind and Mental Deficiency and School Nurse and respective Clinics Each one for a district in the City ...	{ C. V. Rochford, C.M., C.R.S.I. E. Brayne, C.M., G.T. L. Robson, C.M., C.R.S.I., G.T. A. E. Austin, S.R.N., C.M. Z. K. Wilkins, S.R.N., C.M., H.V.C.
Chief Clerk	F. Thomas.
Assistant Clerk	T. R. Blythe, Cert. Liv. Un. San. Sc.
Assistant Clerk and Additional Sanitary Inspector	E. W. Bushell, C.S.I.B., Cert. Liv. Un. San. Sc.
Assistant Clerk and Laboratory Attendant	W. H. Wilkinson.
Public Assistance Officer	G. S. N. Hull.
District Relieving Officer and Vaccination Officer	F. Butler.
District Relieving Officer and Vaccination Officer	C. Brown.
Matron, Isolation Hospital	Miss L. Taylor, G.T.
Matron, St. James's Hospital	Miss Moss, G.T.

PART TIME.

Venereal Diseases Officer	A. B. Paul, M.A., M.B., B.C.
Venereal Diseases Officer	J. N. Adam, F.R.C.S. (Edin).
Medical Officer, Maternity and Child Welfare Clinic	M. T. Place, M.B., Ch.B., D.P.H.
Medical Officer, Ante-Natal Clinic	M. T. Place, M.B., Ch.B., D.P.H.
School Dentist	C. L. Wade, L.D.S.
Public Vaccinator	R. A. D. Pope, B.A., M.D.
Medical Officer, Public Assistance	R. A. D. Pope, B.A., M.D.
Consultant—Puerperal Fever, etc. ...	A. McMurray, F.R.C.S. (Edin.).
Public Analyst	{ W. Foulkes Lowe, A.R.S.M., F.I.C. Harold Lowe, M.Sc., F.I.C.
Veterinary Surgeon	H. H. Aldred, M.R.C.V.S.

* Certificate Royal Sanitary Institute, Meat and Food Inspection.

† Certificate Liverpool University, Meat and Food Inspection.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1930.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres)	2,862
Population (Census, 1921)	40,794
Population (estimated, 1930)	40,910
Number of inhabited houses (1921)	8,447
Number of inhabited houses (1930)	9,197
Number of families or separate occupiers (Census, 1921) ...	8,890
Rateable value	£294,841
Sum represented by a penny rate (estimated)	£1,150

We are directed by the Ministry of Health to use the population given for the middle of 1929 as the population for the year 1930. The figure given as our population has been too low for some years back and it is almost certain that a recalculation of our death rates and birth rates for the last five years on the basis of the coming census will show that those rates will have to be substantially reduced from the figures I have given in my reports. The population figure given by the Registrar General for the middle of 1929 was 40,750, and if this is corrected for Chester residents in St. James's and the Mental Hospital and for non-Chester patients in the Royal Infirmary the figure for the year 1930 is 40,910. The various birth and death rates given below are calculated on this figure :—

	Total.	Male.	Female.	
Live Births { Legitimate	638	323	315	} Birth-rate 16.3
{ Illegitimate	29	14	15	
Still-births	rate per 1,000 total births			73.4
Deaths, 585	crude death-rate			14.29
	corrected death-rate			13.60
Percentage of total deaths occurring in public institutions				16 4
Number of women dying in, or in consequence of childbirth—				
from sepsis				none
from other causes				four
	Legitimate	Illegitimate	Total	
Death-rate of infants under one year of				
age per 1,000 live births	67.3	172.4	71.96	

Deaths from measles (all ages) 19	rate 0.46
Deaths from Whooping Cough (all ages) 1	rate 0.02
Deaths from Diarrhœa (under 2 years) 4	rate 0.09

The birth-rate is below that of last year, being indeed the lowest on record. The next lowest was in 1927 when it was 16.5.

Our position relative to England and Wales and smaller towns is given below :—

BIRTH-RATES.

	England and Wales.	Smaller Towns.	Chester.
1926	17.8	17.6	19.9
1927	16.7	16.4	16.5
1928	16.7	16.6	16.9
1929	16.3	16.0	17.2
1930	16.3	16.2	16.3

STILL-BIRTHS.

1929	0.68	0.71	0.78
1930	0.69	0.69	1.2

There were 49 still births during the year, 17 more than last year. In 15 cases it was the first infant that was lost. In 14 cases their had been previous still births or miscarriages. Accidents of parturition were responsible for 13.

Infant Death-rate.—This can be given accurately as it is calculated on the number of live births which is known. There were 48 deaths of infants under one year and 667 live births which is equivalent to an infant death-rate of 71.96 or 72 per 1,000 births. Developmental causes accounted for 18 of the 48, pneumonia for 9 and infectious diseases for 5. The rate has twice been lower in Chester—59 in 1928, and 70 in 1927, and it was equalled in 1925. Our position is shown in the following table :—

	England and Wales.	Smaller Towns.	Chester.
1926	70	67	80
1927	69	68	70
1928	65	60	59
1929	74	69	78
1930	60	55	72

Notifiable Infectious Diseases.—The notifications of scarlet fever fell from 433 in 1929 to 83 in 1930. Diphtheria rose from 46 to 109, but the virulence was noticeably less. Puerperal fever was notified twice

compared with 10 in 1929, and puerperal pyrexia four times compared with 10. Erysipelas was notified 11 times compared with 21. Measles was prevalent during the year and notified on 1,292 occasions compared with 105 in 1929.

Our position with regard to some of those diseases is given below:—

Notifications of Infectious Diseases per 1,000 living.

		Enteric.	Scarlet Fever.	Diph- theria.	Puerperal Fever.	Puerperal Pyrexia.
England and Wales	...	.07	2.76	1.84	0.06	0.14
Chester	...	0.00	2.02	2.66	0.05	0.09

Death-rates.—The deaths of Chester residents in 1930 numbered 585, about 50 less than last year. It was a bad year for infectious diseases as both measles and diphtheria were prevalent. Measles is the most fatal infectious disease of childhood and diphtheria was more than usually fatal. The total deaths from infectious diseases was 34 compared with 20 in the previous year. Apart from measles which caused 19 deaths compared with none in 1929 and diphtheria which caused 12 compared with six, there was no marked increase under any heading—except deaths from violence, i.e., accidents which were nearly doubled, 23 compared with 14, and nephritis which caused 24 compared with 18. All other causes of death showed slight declines.

As regards deaths at different ages, there was a slight fall in those under one year, practically no difference in older ages until between 25 and 45 when there was a slight increase; a distinct fall at age 46—65; an increase between 65 and 75; and a fall amongst those over 75 years of age. The increase in the age of greatest activity and usefulness, 25-45, is due to 6 more deaths from tuberculosis of the lungs, and 5 more from accident and suicide.

Our position as regards death rates is shown in the following table:—

	England and Wales.	Smaller Towns.	Chester.
1926	11.6	10.6	12.37 (corrected)
1927	12.3	11.3	11.87 („)
1928	11.7	10.6	10.8 („)
1929	13.4	12.3	14.5 („)
1930	11.4	10.5	13.6 („)

The death-rate for 1930 is practically 1 per 1,000 less than that for 1929. As I have explained, those rates will have to be recalculated when a correct population figure is obtained. As they stand, they are of little value.

And as regards some particular death rates per 1,000 living :—

	Enteric Fever	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Per 1,000 births.	
								Diarrhoea under 2 years	Total deaths under 1 year.
England and Wales	0·01	0·00	0·10	0·02	0·05	0·09	0·12	6·0	60
Smaller Towns ...	0·00	0·00	0·08	0·01	0·05	0·07	0·13	4·4	55
Chester ...	0·00	0·00	0·46	0·02	0·02	0·29	0·07	5·9	72

Both conditions in which our death rate was higher than in the country generally were epidemic during the year.

Puerperal Pyrexia.—Notified four times and all treated at home. One of the cases was a Cæsarian section done in the Maternity Hospital; one had contracted pelvis and had a very difficult labour; another had forceps delivery and the fourth retained blood clot. Enquiry is made into the circumstances of each case, expert advice offered, and also institutional treatment if desired.

Puerperal Fever was notified twice. In one case the previous condition of the mother seemed to have been the cause, and in the other no explanation could be found. Enquiry is made also into the circumstances of those cases and offer of expert advice and institutional treatment made. One of those cases was treated at the Isolation Hospital.

The outstanding feature of the year has been the prevalence of diphtheria in greater amount and of greater virulence than for many years back. The notifications were more than double those of the previous year and the virulence which had rapidly increased in the latter part of 1929 continued severe but became somewhat less as the year advanced. The disease was not confined to, nor more prevalent in one part of the town than another, and the surrounding country participated in the epidemic. Further remarks on this subject will be made under control of infectious disease.

The chief occupations of Chester residents are railway workers, employees of engineering works, tobacco works and those employed in restaurants and tea rooms. There is no reason to suppose that illness was more prevalent in any one of those occupations than in the general population. The outstanding obstacle to healthier conditions is the lack of houses. There seems to be growing in Chester an increased health consciousness which with the provision of sufficient houses will doubtless result in a marked improvement in a few years.

GENERAL PROVISION OF HEALTH SERVICES IN THE CITY.

1. *Public Health Officers*—(See front page).

2. *Nursing in the Home*.—

(a) The District Nursing Association has nurses employed in the nursing of patients in their homes. A large amount of valuable and highly appreciated work is done. Patients are referred to the Association by the Health Department as occasion arises.

(b) At times of epidemic sickness the Association helps in the nursing of such illnesses as Measles and Whooping Cough in the homes, and for this service a fee of £50 per annum is paid by the Education Authority.

Details of the work done by the Health Visitors are given below :—

Total number of births notified	860
(of these 27 were notified late ; 9 by doctors and 18 by midwives)	
Cases attended and delivered by doctors	82
Cases attended and delivered by Midwives	778
Number of Still-births	49
(Midwives' cases 35, doctors' 14)	

The Health Visitors made the following visits :—

Primary birth visits	550
Return visits	2245
Visits to children (1—5 years)	4395
Visits to expectant mothers	424
Other visits	2748
Visits to Midwives	45

Of the 778 births attended by midwives in 83 cases some condition arose requiring the calling in of medical help either for the mother or infant. This number is the same as in the year 1929.

The reasons for requiring help were as follows :—

Feebleness of child	13
Prolonged labour or malpresentation	20
Complications before labour	8
Complications during labour	3
Complications after labour	3
Rise of temperature	7
Discharge from the eyes	4
Deformity of infant	2

Lacerated perinæum	19
Abortion	1
Skin Affections	1
Prematurity	1
Patient's own request	1

There were 49 still births registered in Chester during the year, particulars have been given earlier in the report.

MILK (MOTHERS AND CHILDREN) ORDER, 1918.

Milk has been supplied free to 1,719 applicants during the year, 47 less than in 1929. Ninety-nine of above number were first applications, the others were renewals.

NOTIFICATION OF BIRTHS ACT.

The number of births not notified until the omission was pointed out has increased to 27 in the year.

Dental Clinic.—Nursing and expectant necessitous mothers are supplied with dentures through the dental clinic, either free or on part payment. This arrangement has been taken advantage of in three cases during the year.

The School Clinic is an important part of Public Health work and here an endeavour is made to make parents realise and assume their responsibilities in the treatment of minor ailments. About a third of the work done here should be undertaken by the parents.

BLIND PERSONS ACT, 1920.

The Local Authority has delegated its responsibilities under this Act to the Chester Society for the Home Teaching of the Blind. The Local Authority have two representatives on the Committee of Management.

There were 81 persons on the register at the end of the year and the Local Authority pay to the Society £362 per annum.

3. *Midwives.*—There are 24 midwives practising in the City nine of which work under the auspices of the Benevolent Institution and Maternity Home, two doing outside work. All the midwives are

certified and none are subsidised by the Local Authority. Their homes are visited quarterly, and registers, ante-natal records and home conditions examined by the senior health visitor. All midwives are seen, with their bags, registers and notes, once a year by the Medical Officer and on special occasions as necessary.

Under the provisions of the Midwives Act, the Local Authority paid the whole or part of the doctor's fee when called in by a midwife in 64 cases, an increase of 1 over last year.

Artificial Feeding.—The notification of the adoption of artificial feeding is very badly carried out, there having been only 26 such notifications received during the year.

4. *National Health Insurance.*—Except in the certification of fitness or unfitness for work in patients suffering from tuberculous diseases and post diphtheritic conditions, there is no other connection with National Health Insurance.

5. *Poor Law Medical Out-Relief.*—By virtue of the Local Government Act, 1929, Chester became a separate unit for Poor Law purposes. The City was constituted one district for the purpose of Poor Law Medical Relief, and Dr. R. A. D. Pope was appointed district Medical Officer. This arrangement has proved satisfactory and efficient. Formerly the City formed part of the Old Poor Law Union and for medical relief purposes was included in a district comprising a portion of the Rural District.

6. The Municipality has its own laboratory in which suspected material is examined sent by practitioners in the district or arising in the work of the infectious disease hospital or the municipal clinics. The work done in the municipal laboratory includes the examination of throat, and nose swabs for detection of the diphtheria bacillus, or hæmolytic streptococci, smears for the gonococcus, sputum for the tubercle bacillus or other organisms, blood counts or the examination of blood for the Widal reaction in suspected typhoid or the paratyphoid fevers, the examination of urine for various organisms, or for routine examination for the presence of sugar, albumen or blood.

In addition, samples of milk are examined bacteriologically every week and those samples showing counts over the standard are the subject of advice or warning to the vendor or producer. In this way about 150 milk samples are examined each year.

Fortnightly bacteriological examinations of the water supply are also made, each individual filter bed, the mixed waters and water from a consumers tap being examined.

A chemical examination of the water is made each month.

The following is a statement of the work done during 1930:—

LABORATORY WORK, 1930.

Material.	Examined for	Positive,	Negative.	TOTAL.
Swabs, Nose and Throat	Diphtheria bac. ...	118	982	1100
Sputum ...	Tubercle bacillus ...	78	155	233
Urine ...	Albumen, sugar, etc. ...	...	5	5
" ...	B Typhosus ...	...	1	1
" ...	Para Typhoid B ...	...	2	2
Fæces ...	Para Typhoid B ...	...	2	2
" ...	Dysentery group ...	...	1	1
Blood ...	Organisms ...	...	3	3
" ...	Widal reaction ...	...	2	2
Ophthalmic Smears	Gonococci ...	1	3	4
Smears ...	Gonococci ...	1	4	5
Milk ...	Tubercle bacilli ...	...	3	3
Pus ...	Streptococci ...	1	...	1
Hair ...	Ringworm ...	...	1	1
Totals ...		199	1164	1363

Routine Chemical Examinations of City Water Supply	...	12
Routine Bacteriological Examinations of City Water Supply		233
Bacteriological Examinations of Milk		144

7. Legislation in Force.

LIST OF ADOPTIVE ACTS, BYE-LAWS AND LOCAL REGULATIONS IN FORCE IN THE DISTRICT.

Chester Improvement Acts, 1845, 1884.

Baths and Washhouses Act, 1846—1899.

Baths Bye-laws (1907).

Public Improvements Acts, 1860.

Houses and Parts of Houses Let in Lodgings Regulation, 1867.

Bye-laws as to Obstructions, Encroachments and Nuisances, 1879.

Bye-laws under the Dairies, Cowsheds and Milkshops Order, 1885, 1904.

Bye-laws in respect of Nuisances, 1887.
 Public Health Acts Amendment Act, 1890.
 Infectious Diseases (Prevention) Act, 1890.
 Private Street Works Act, 1892.
 Isolation Hospital Rules (1901).
 Public Health Acts Amendment Act, 1907—Parts II., III., IV., V., VI. and X.
 Bye-laws for the Regulation of Common Lodging Houses, 1909.
 Bye-laws for the Regulation of Slaughterhouses, 1909 and 1922.
 Public Health (Prevention and Treatment of Diseases) Act, 1913.
 Rats and Mice (Destruction) Act, 1919.
 Public Health (Tuberculosis) Act, 1921.
 Bye-laws for the Regulation of Slaughterhouses provided by the Council, 1925.
 Tuberculosis Order, 1925 (C.D.A.A.).
 City of Chester (Measles and Whooping Cough) Regulations, 1925—S.R.O., 1925, No. 1130.
 Public Health Act, 1925, except Sections 17, 18, 19, 20, 34 and 56.
 City of Chester (Public Health, etc.) Order, 1926 (adopting Public Health Acts Amendment Act, 1907, and repealing certain Sections in Acts of 1845 and 1884.
 Nursing Home Bye-laws (1928).
 Chester Corporation Act, 1929.

8. Hospitals.

(a)

Name.	Situation.		Purpose.	No. of Available Beds.	Pro-portion used by City Residents.	Management.
Chester Royal Infirmary	City	...	General	211	$\frac{1}{3}$	Voluntary Agency
St. James' Hospital...	City	Boundary	General	257	$\frac{5}{6}$	Local Authority
Maternity Hospital...	Centre of City...		Maternity	8	$\frac{5}{9}$	Voluntary Agency
Cheshire Joint Sanatorium	Market Drayton		Pulmonary Tuberculosis	250	$\frac{1}{6}$	Joint Committee
Shropshire Orthopædic Hospital	Gobowen	...	Non-Pulmonary Tuberculosis and other crippling conditions	300 approx.	$\frac{1}{8}$	Voluntary Agency
Isolation Hospital ...	1 mile from City		Infectious Diseases	64	$\frac{5}{6}$	Local Authority
Tuberculosis Pavilion, Sealand	1 mile from City		Advanced Tuberculosis and Non-Pulmonary Children	26	All	Local Authority
Smallpox Hospital ...	1 mile from town		Smallpox	10	—	Local Authority

The Nursing Staff of the hospitals under the management of the Local Authority is composed as follows:—St. James's Hospital—One Superintendent Nurse, an Assistant Superintendent Nurse, Home Sister, Seven Day Sisters, Two Night Sisters, 28 Probationer Nurses and 4 Male (Uncertificated) Nurses. The Probationers finish their training at Birkenhead. Isolation Hospital and Tuberculosis Pavilion—Matron, Four Sisters, Two Staff Nurses and 14 Probationers. The Probationers finish their training at Monsall Hospital, Manchester. Smallpox Hospital—Staffed from Isolation Hospital when necessary.

The arrangement regarding the Medical Staffing and Consultants at St. James's are not yet complete. At the Isolation Hospital a Consultant from the Chester Royal Infirmary can be had when required.

(b) The location and amount of accommodation for various conditions is given where possible in the following table:—

			Chester Royal Infirmary.	St. James' Hospital.	Chester Maternity Hospital.	Cheshire Joint Sanatorium.	Shropshire Orthopaedic Hospital.	Isolation Hospital Chester.
General Medical	...	M	14	46	—	—	—	—
"	...	F	14	35	—	—	—	—
General Surgical	...	M	61	53	—	—	—	—
"	...	F	52	45	—	—	—	—
Children	...	...	26	32	—	—	—	—
Maternity	...	...	—	6	8	—	—	—
Venereal Diseases	...	M	4	—	—	—	—	—
"	...	F	4	—	—	—	—	—
Tuberculosis Pulmon.	...	...	—	—	—	8*	—	18
" Non-Pulmon.	...	...	—	—	—	—	†	8
Chronic Sick	...	M	—	32	—	—	—	—
"	...	F	—	36	—	—	—	—
Mental Defective	...	...	—	40	—	—	—	—
Orthopaedic	...	...	—	—	—	—	†	—
Ear, Nose and Throat	...	M	5	—	—	—	—	—
"	...	F	5	—	—	—	—	—
Ophthalmia Neonatorum	...	...	—	—	—	—	—	—
Ophthalmic	...	M	6	—	—	—	—	—
"	...	F	6	—	—	—	—	—
Infectious Diseases	...	...	—	—	—	—	—	64

* Beds used by Chester Local Authority. † Beds given as required

The Royal Infirmary is fully staffed and has a radiological department with a specialist in charge. Specialists are also in charge of ear, nose and throat work and of ophthalmic work, and a gynæcologist is also on the staff. There is also a well equipped pathological department.

There is a surgeon and physician on the staff of St. James's Hospital. There is no Xray department, but a dentist and ophthalmic surgeon visit the hospital. The future equipment and staffing of this hospital is at present under consideration.

At the Isolation Hospital, ultra violet light is employed in the treatment of non-pulmonary tuberculosis and as a general tonic. A surgeon may be had from the Royal Infirmary when required.

The Maternity Hospital works in close co-operation with the Royal Infirmary and the services of the gynæcologist can be had when required.

ISOLATION HOSPITAL.

There were four hundred and forty-five patients admitted to hospital during the year, being 44 more than in 1929 and 179 more than in 1928. The increase is in diphtheria, the incidence of which has been more than doubled. The admissions of scarlet fever have been little more than half those of the previous year, and measles cases have risen from 2 to 69.

Diphtheria has been prevalent in the City and district since the Autumn of 1929 and has been of a very virulent type. Both the virulence and the number of cases tend to decrease, but occasional hæmorrhagic and other virulent types are met with. Late admissions are still common and some of the cases have been brought in in a dying condition. There were 15 deaths, being 9.1 per cent. of the cases, very low considering the type of case.

Scarlet fever has been much less prevalent and the admissions have only been about half those of the previous year. The type is still mild, but two deaths occurred, one complicated by pneumonia and the other with tuberculous peritonitis.

The 65 cases of measles were all severe or complicated, a large proportion of them having extensive broncho-pneumonia, and there were 14 deaths.

In all, there were 41 deaths, 34 of those being from the 302 City patients including 8 from tuberculous disease, 12 from diphtheria, 13 from measles and pneumonia and one from scarlet fever and pneumonia. There were seven deaths from amongst the 143 patients from outside districts including 1 from tuberculous disease, 3 from diphtheria, 1 from measles and pneumonia, 1 from puerperal fever and 1 from scarlet fever and tuberculous peritonitis.

The following table gives the details of admissions :—

	Tuber- culous Disease.	Scarlet Fever.	Diph- theria.	Typhoid and Para Typhoid Fever.	Puer- peral Fever and Pyrexia.	Whoop- ing Cough.	Measles	Small- pox.	Other Con- ditions.	Total.
Chester ...	29	70	108	...	3	1	65	...	26	302
County ...	6	...	...	...	...	...	...	...	...	6
Chester R.D.C.	...	14	32	1	1	...	2	...	...	50
Tarvin and Malpas	...	39	16	...	1	...	2	...	...	58
Hoole ...	...	17	7	...	...	...	...	...	...	24
Other Authorities	...	1	1	...	3	...	...	...	...	5
Total ...	35	141	164	1	8	1	69	...	26	445

9. *Maternity Nursing Homes.*—There are six nursing homes registered in the City, five of which also take maternity cases, the sixth being the Chester Maternity Home. There has been one application for registration during the year, which was granted. No application has been refused and none cancelled. The Royal Infirmary also deals with maternity cases, but is exempt from registration and is not included in the six mentioned.

10. *Maternal Mortality.*—In all cases of maternal deaths the midwife and the relatives are interviewed and enquiries made as to former pregnancies and confinements and health generally, particularly during the last pregnancy. The medical attendant is written to and given a summary of the information gathered, he adds his own opinion and findings, and if the Local Authority can add anything, it is again submitted to the medical attendant for his remarks.

In the case of puerperal fever or puerperal pyrexia roughly the same procedure is gone through. The services of a specialist is offered to the medical attendant immediately on notification, and also an offer of institutional treatment.

11. *Institutional provision for unmarried mothers, illegitimate infants and homeless children.*—Unmarried mothers may be admitted for confinement to either the Chester Maternity Home or the Municipal Hospital. The only provision made for illegitimate infants and homeless children is in the Institution of Public Assistance.

12. *Institutional provision for the care of the mentally defective.* The only provision made by Chester for the care of the mentally defective is at St. James's Hospital where a block has been set aside

for the purpose and recognised by the Board of Control for the reception of 40 female patients. We have no provision for male patients. There are 9 female Chester patients in St. James's but the rest of our mentally defectives, 19 in number, for whom we have found accommodation are scattered in various institutions from Bristol to Lancaster. We have still a considerable number living at home under very unsatisfactory conditions who ought to be in institutions.

A joint scheme for the provision of 1,000 beds is in being, and is making slow progress. Cheshire, Birkenhead, Wallasey and Chester are jointly responsible in proportion to their needs. Cranage Hall, in East Cheshire has been bought for the purpose, and the building is in course of alteration for the temporary use of patients and for administration. Pavilions will be built first in the near neighbourhood of the main building and will be used in the first instance for low grade cases, the type of case it is at present most difficult to place in an institution.

13. *Ambulance facilities.*—Two ambulances are provided by the Town for general purposes and are kept at the Fire Station which is centrally situated, and a driver always available. For infectious diseases, two ambulances are kept at the Isolation Hospital where also the driver resides. There will be delivered in the next few days a third ambulance which will enable one rather old one to be used for the removal of infected bedding or for emergency.

14. *Clinics and Treatment Centres.*—The following clinics are administered by the Local Authority :—

		Situation.	Accommodation.
1.	Maternity and Child Welfare Clinic	Princess Street ...	Waiting room, weighing room, and consulting room
2.	Ante-Natal Clinic	„	Same
3.	School Clinic (inspection) ...	„	„
4.	School Clinic (treatment) ...	„	„
5.	Ultra Violet Ray Clinic ...	„	„
6.	Tuberculosis Clinic ...	St. John Street ...	Waiting room and consulting room
7.	Venereal Disease Centre ... (Joint with Flint & Cheshire)	Chester Royal Infirmary	Waiting room, treatment room, and ablution room

Under the auspices of the Cheshire Branch of the Red Cross Society and Society of St. John of Jerusalem a local Committee administer the

8.	Orthopædic After Care Clinic	St. John Street ...	Waiting room and Doctor's room
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Some details of the work done in those clinics are given below :—

(1) The Maternity and Child Welfare Clinic meets twice a week under the charge of a medical practitioner. The babies and older children are regularly weighed and records kept. Where and when necessary they see the doctor who advises the parents.

The following attendances were made during the year :—

	Number	Attendances
Mothers	356	2348
Babies	228	1424
Children (1—5 years)	227	1283
		Weighings
Babies		1593
Children		532

The following work was done by the Medical Officer of the Clinic :—

First visits of infants	228
Subsequent visits	463
Children (1—5 years) first visits	227
Subsequent visits	307

(2) The Ante-Natal Clinic meets once a week under the charge of the same medical officer as the Child Welfare Clinic. Expectant mothers are examined and advised, and the midwife or doctor interested in the case, if not present, is written to. During the 9 months this clinic has been open, the Medical Officer has seen 92 expectant mothers on 149 occasions. The number attending the clinic was 10.7 per cent. of the total births.

(3) The School Clinic (Inspection) meets daily, Saturdays excepted.

(4) The School Clinic (Treatment) meets on Tuesdays, Wednesdays and Fridays. Both those clinics are under the care of the Assistant School Medical Officer who is also Assistant Medical Officer of Health, so that there is close co-ordination in the work.

(5) Ultra Violet Ray Clinic meets on Tuesdays and Fridays. The treatment is found very valuable as a general tonic and is used as such in debilitated children from the schools. In rickets and in glandular or bone tuberculosis it is also most valuable and most of the youngest children treated attended for such conditions. The total number treated was 67, and of those 28 were under school age. 19 of school age, 16 suffered from tuberculous conditions, and 4 were adults

suffering from tuberculosis. In cases where the feeding is at fault, a patient will, under treatment, show greater vitality and liveliness with better colour and ton, but does not gain weight until the dietetic fault is corrected.

(6) Tuberculosis Clinic meets on Mondays and Thursdays at 11 o'clock, and on Thursday evening at 6.

The number of patients on the Dispensary Register at the end of the year was	183
Number of new cases examined	61
Number of contacts examined	42
Number of attendance at the Dispensary	269
Number of attendances at Cheshire Joint Sanatorium for refills in artificial pneumothorax	91
Number of visits of Tuberculosis Officer to Homes	53
Number of insured persons on Register	76
Number of visits of Nurses to tuberculous persons (including those under the Tuberculosis Regulations)	715

(7) Venereal Diseases Centre.—This is situated at the Royal Infirmary and is staffed by members of the senior staff. Meetings are held on Mondays and Wednesdays at 5—7 p.m., Thursdays at 3 p.m. and Saturdays 12—2 p.m. The clinic is open all day for irrigations, and trained assistants are in attendance. The clinic is a joint one for Denbigh and Chester, and the County of Cheshire also sends patients.

The number of Chester patients treated during the year in given below :—

	Syphilis		Gonorrhœa		Totals	
	M	F	M	F	M	F
Number of cases at beginning of year	62	103	176	63	238	166
Number of cases attending for first time in 1930	43	21	88	23	131	44
Ceased to attend or transferred to other centres	5	47	121	49	126	96
Discharged	8	3	18	2	26	5
Number under treatment at end of year	92	74	125	35	217	109

The number of Chester patients treated for the first time during the year is given for the last five years :—

	1926	1927	1928	1929	1930
Syphilis	31	20	22	12	16
Soft Chancre	—	—	—	—	1
Gonorrhœa	45	35	24	38	30
Conditions other than Venereal	12	7	3	1	10

The number of attendances made by Chester patients was 1,236, and the number of in-patients days was 165.

15. *Local Government Act, 1929.*—The Local Authority have adopted a scheme to meet the immediate necessities of the transfer of the Poor Law functions to them, with the intention of revising that scheme after a comparatively short period.

A Committee representing all the voluntary medical bodies and the Local Authority has been formed and is now engaged on the consideration of the best line of development to secure the most efficient and comprehensive medical service for the district.

ORTHOPÆDIC AFTER-CARE CLINIC AND CASES TREATED AT SHROPSHIRE ORTHOPÆDIC HOSPITAL.

During the year 138 patients were treated for various crippling conditions at Shropshire Orthopædic Hospital. Those cases included various congenital deformities, rickets, and the deformities resulting from this condition, and twenty-one cases of so-called surgical tuberculosis. The necessary and important after-care of those patients, together with those who have not required institutional treatment is done at the After-care Clinic. The number of children of school age attending was 61—twelve of whom were suffering from tuberculous trouble—and they made 735 attendances. Children under school age number 52—four of whom were tuberculous—and 490 attendances were made. A total of 113 patients and 1,225 attendances.

SANITARY CIRCUMSTANCES OF THE AREA.

Water.—The water supply of the City is satisfactory both in quantity and quality. Since the introduction of modern methods of purification, the supply to the City has been of a high standard of purity, and for the last three years the average number of samples which have failed to show the presence of typical bacillus coli in 100 cubic centimetres is 91.5 per cent. A very close watch is kept on the purity of the water and two bacteriological examinations and one chemical are made each month. The provision for increased storage and for sedimentation at the Waterworks will be increased and so render the water still more satisfactory as a town supply. The supply is continuous and unlimited.

The percentage of satisfactory and unsatisfactory samples for the last five years is given below :—

The standard set is the absence of bacillus coli in 100 c.c.

	1926.		1927.		1928.		1929.		1930.	
	B. coli		B. coli		B. coli		B. coli		B. coli	
	Absent.	Present.	Absent.	Present.	Absent.	Present.	Absent.	Present.	Absent.	Present.
10 c.c.	83.3	16.7	100	0.00	100	0.00	95.0	5.0	87.5	12.5
100 c.c.	29.1	70.6	75.0	25.0	96.0	4.00	95.0	5.0	83.4	16.6

The results of the analysis are set out below:—

MONTHLY CHEMICAL EXAMINATION OF THE CITY WATER SUPPLY.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Colour ...	—	Clear	—	v. ft. green	v. ft. green	pale green	Nil.	v. pale green	v. pale green	v. ft. green	v. ft. green	ft. blue green
Opacity ...	—	No deposit	—	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
Reaction ...	Alk.	Alk.	—	Alk.	Alk.	Alk.	Alk.	Alk.	Alk.	Alk.	f. Alk.	Alk.
Chlorides as Cl.	1.1	2.0	1.9	1.9	2.0	1.8	2.8	2.7	2.0	1.5	1.6	1.9
Nitrates as N.	—	—	—	—	—	—	—	—	—	—	—	—
Nitrites as N.	—	—	—	—	—	—	—	—	—	—	—	—
Total Oxidised Nitrogen	—	—	—	—	—	—	—	—	—	—	—	—
Free Ammonia as NH_3	.0066	.0066	.0016	.002	.0007	.002	.004	.003	.004	.0026	.0093	.0093
Albuminoid Ammonia as NH_3	.0150	.0082	.022	.011	.009	.010	.0242	.014	.014	.0174	.0110	.014
Oxygen absorbed in 3 hours at 37°C	.104	.132	.0212	.146	.117	.175	.085	.18	.148	.148	.216	.18
Hardness—Temporary	.6	1.4	1.0	1	1.0	1	4.4	3.8	1.1	.8	1	1.4
Hardness—Permanent	.99	.90	10.1	8	7.5	8	7.1	6.2	9.1	8.3	8	7.5
Hardness—Total	10.5	10.4	11.1	9	8.5	9	11.5	10.0	10.2	9.1	9	8.9

There are very few houses in Chester which have not a separate and internal water supply. The estimate is about 180 houses with a water supply in the yard.

Rivers and Streams.—The River Dee, the Shropshire Union Canal and Finchetts Brook pass through the City. The river is known to be polluted by the towns and villages high up the river and steps are at present being taken to constitute a Rivers Board for the water shed of the river.

Within the City boundaries certain storm overflows discharge into the river. The sewer which they relieve will be re-built and altered in the near future so as to prevent or greatly lessen the discharge. The Canal, not so busy a thoroughfare as formerly, gives no trouble, and Finchetts Brook flows through agricultural land for the most part and is liable to very little pollution.

Drainage and Sewerage.—Large schemes of sewerage and drainage are being undertaken in connection with various housing schemes, and additional sewage disposal works are also planned, together with extension and alteration of the present disposal works.

Closet Accommodation.—Chester has, so far as possible, a water carriage system of drainage. During the last 10 years there have been few, if any, conversions, the only pail closets now in use being in the outlying districts beyond the sewered area. Those do not exceed 40 in number. The only exceptions being about 6 in a row of houses below the sewer level.

Scavenging.—The method of scavenging and refuse removal is satisfactory. Refuse is removed weekly from dwellings and daily from shops in the busier parts of the City. The removal is by what is known as the Container System which seems to work well. The refuse is used to make filter beds for sewage and is found to give excellent results.

SANITARY INSPECTION OF THE AREA.

The following is a classified statement of the work done in the Sanitary Department during the year :—

Complaints in respect of nuisances	156
Visits in respect of nuisances	4169
Rooms disinfected after Infectious Diseases	246
Investigations into Infectious Diseases	217
Matters referred to City Surveyor	39
Tests applied to drains	310
Number of premises—	
drains found defective	63
drains repaired	13
insufficient drainage	6
drainage systems reconstructed	70
Ashpits abolished	19

Ashbins provided	1190
Inspection of Courts	114
Inspection of Schools	36
Inspection of Stables, etc.	31
Inspections of Canal Boats	105
Inspections of Factories and Workshops	249
Inspections of Dairies, Cowsheds and Milkshops	147
Inspections of Slaughterhouses	1356
Inspections of Butchers Shops	285
Inspections of Fishmongers Shops	277
Inspections of other food shops	313
Inspections of Offensive Trade Premises	8
Smoke observations	16
House to House District Inspections	150
Visits to Common Lodging Houses	10
Dwellings, Inspections and Re-inspections	6369
Visits in respect of Rat Nuisances	739
Visits to Licensed Premises	150
The following notices were served for the abatement of nuisances :	
Intimation	1589
Statutory	178

Of the Statutory Notices, four were served under the Housing Act, 1925, and one under the Rats and Mice (Destruction) Act, 1919.

Legal Proceedings.—For failure to comply with the requirements of a Statutory Notice proceedings were taken in one case for the abatement of nuisance and in eleven cases in respect of refuse bins. All cases were dismissed on payment of costs which amounted to £2 8s. Proceedings were also taken under Sections 116—119 of the Public Health Act, 1875, and Section 81 of the Chester Corporation Act, 1929, for exposing for sale in Chester Smithfield an emaciated and diseased animal which was unfit for food. In this case the defendant was fined £10.

Proceedings taken under the Sale of Food and Drugs (Adulteration) Act, 1928, are set out in detail under the paragraph dealing with this subject.

SMOKE ABATEMENT.

Observations under this Act were made on sixteen occasions following complaints, and warning notices were sent on two occasions. Although smoke consuming apparatus has been installed by a number of steam users, it does not appear that efficient steps are taken to see that the apparatus is properly used. Black smoke is frequently seen issuing from chimneys where it is known smoke consuming apparatus is in use. This black smoke immediately disappears on the managers attention being drawn to it, showing that the apparatus will work

satisfactorily if properly used. Employers ought to supervise the stoking of their furnaces both for the benefit of their pockets and the improvement of the City.

RATS AND MICE (DESTRUCTION) ACT, 1919.

Owing to illness and death no rat catcher was at work for four months of the year. During that time the Chief Sanitary Inspector dealt with infested premises.

National Rat Week was held during the week ending November 8th, when extra staff was put on the work. The owners of premises likely to be rat infested owing to the nature of their business were invited to co-operate with the Local Authority during the week, and by advertisement in the press the public were also asked to co-operate, and at the same time the loan of traps and the offer of poison baits, harmless to domestic animals, was offered.

The larger employers of labour signified their intention to co-operate, and the public applied for poison baits in 35 instances, and for traps in 6. It is not possible to give an accurate estimate of the result of such a campaign, but the reports indicate a satisfactory measure of success. In one case 220 baits were taken out of 350 put down, and 30 poisoned rats seen. In addition, 130 rats were trapped in the same premises.

The work of the week was concentrated on special premises, sewers, tips, ditches, and subsequent inspection proved the bait to have been freely taken. Four men were employed in the work, and 180 lbs. of bait used.

The following table sets out the work done on this matter during the year.

Month 1930.				No. of Visits.	Method.		Rats Caught
					Poison	Traps.	
January ...	...	...	...	123	47	89	167
February...	...	...	...	116	15	105	189
March ...	...	...	...	120	12	109	189
April ...	...	...	...	117	13	107	62
May ...	...	...	...	114	18	97	142
October ...	...	...	}	69	9	61	194
November	...	...		80	25	52	112
December	...	...					
TOTAL	...	...	...	739	139	620	1055

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

WHOLESALE DEALERS IN MARGARINE AND MARGARINE CHEESE.

The number on the register remains the same as last year. The premises are regularly inspected and are satisfactory.

FRIED FISH SHOPS.

There are 33 shops of this nature which have been regularly inspected and kept in a satisfactory condition. The quality of the food provided has been found to be good. There have been no complaints regarding the nature of the business.

RAG FLOCK ACTS.

Two samples of rag flock were examined during the year, and each was certified as containing 6 parts of Chlorine per 100,000, the allowable limit being 30.

The rag flock used in the City is bought with a warranty to comply with the Rag Flock Acts of 1911 and 1928. Old flock is not used in the manufacture of bedding or upholstery.

COMMON LODGING HOUSES.

The number of common lodging houses on the register remains the same as last year—four. They provide accommodation for 145 men. They were visited on ten occasions during the year and were found to be in a satisfactory condition.

SANITARY CONDITIONS OF SCHOOLS.

Besides the supervision of schools by the School Medical Officer and Assistant School Medical Officer, the Sanitary Inspecting Staff made 31 examinations of schools. They were found satisfactory, the sanitary accommodation for infants at St. John's School having been modernised.

The playgrounds in two schools are in need of repair and have been reported.

Water is supplied in each school and there are also sufficient wash-hand basins, soap and towels.

The health of the scholars is seen to through a daily inspection clinic to which parents, teachers or the visiting nurses send cases. The efficient ventilation of classrooms is also a point noted by the Assistant School Medical Officer during his visits either for routine work or to see special cases. During the year there has been no reason to make a bacteriological examination of the throats of a whole class,

but inspection and necessary exclusions are practised. No school has been closed for infectious disease for many years past, as it is considered that the opportunities for infection are as numerous out of school as in it and the children are easier kept under observation for immediate action where necessary.

HOMEWORKERS.

There were 15 homeworkers notified during the year, employed as follows:—Tailoring 8 persons, Boot Repairing 7. The homes of those workers were inspected and found satisfactory.

PUBLIC CONVENIENCES.

One unnecessary and unsatisfactory public convenience has been closed. The others are in a satisfactory condition, one or two having been modernised. Good progress is being made in the erection of a much needed one at City Road.

LICENSED PREMISES.

One hundred and fifty visits were made to licensed premises for the purpose of inspecting the nature and sanitary state of conveniences there. In some cases they are not all that could be desired, but owing to the crowded state of sites it is very difficult to get improved arrangements. Two licensed houses were reported to the Licensing Magistrates as being unsatisfactory. These were outstanding at the end of the year. In three cases the sanitary accommodation has been brought up-to-date and in two other cases work was well in hand, but not completed at the end of the year, which will make them satisfactory.

CANAL BOATS ACTS, 1884—1887.

Three boats were removed from the register during the year, reducing the number sailing under Chester registration to 282. Of these, 105 were inspected during the year and four were found infringing the Acts or Regulations, the number of infringements being 11. In all cases the necessary repairs were carried out on service of notice. The accommodation provided allowed for 361 persons and the number of occupants was 306; adult males 145; adult females 74; children of school age 52; and 35 children under school age.

A statistical statement of the work done under the Acts is given below:—

CANAL BOATS ACTS, 1877 AND 1884.

Statistical Supplement to the 1930 Annual Report of the Chester Urban Sanitary Authority.

Number of Boats added to Register in 1930	none
Number re-registered owing to structural alterations	none

Number re-registered owing to other reasons	none
Total number registered to 31st December, 1930	285
Total number of registrations cancelled	3
Actual number of boats on register at 31st December, 1930	282
Number of boats inspected in 1930	105
Number of boats conforming to the Acts and Regulations	101
Number of boats infringing the Acts and Regulations	4
Total number for which the cabins were registered	361
Total number occupying the cabins	306

Details of occupation :—

Male Adults	145
Female Adults	74
Children of School Age	52
Children under School Age	35

— 306

Details showing numbers infringing in respect to :—

— Registration	—
— Notification of change of master	—
— Absence of certificate	—
— Certificate not identifying owner of boat	—
1 Marking	1
— Overcrowding	—
— Partition (Registration 8, b. ii.)	—
— Females over 12 improperly occupying	—
4 Painting	4
4 Cleanliness	4
— Ventilation	—
1 Dilapidation	1
— Removal of bilge water	—
— Without pump	—
— Refusal of admittance to inspector	—
1 No proper water vessel	1
— Without requisite double bulkheads	—
— Non-notification of infectious disease	—
— Number of boats detained for cleansing (not for I/D.)	—
—	—
11 Total Cases met with. Total cases remedied	11
—	—

Number of legal proceedings taken	none
Number of printed notice forms issued	4
Number of notices attended to	4
Number still corresponding about	none

HOUSING.

During the year 150 houses were inspected under the Housing (Consolidated Regulations, 1925). Of this number 15 were found satisfactory and the remaining 135 were dealt with as follows:—

Closing Orders were made in respect of three houses—8, Brook Place; 7 and 9, Chapel Lane, Boughton.

Statutory Notices were served under Section 3 of the Housing Act, 1925, in four instances and complied with, and in one case under the Public Health Acts.

Forty houses were remedied by informal action, and twenty-one were outstanding at the end of the year. The remaining 66 are situated in an area subject to future action. Work has been completed in 13 of the 21 outstanding at the beginning of 1930.

Under the Public Health Acts 1940 houses were inspected, and it was found necessary to serve 174 Statutory Notices. With one exception, in which legal proceedings were taken, all the notices were complied with at the end of the year. No action was found necessary in 217 of the houses inspected. The remainder were dealt with informally. The large increase in the number of houses inspected is due to special attention being given to the provision of sanitary dust bins in accordance with Section 184 of the Chester Corporation Act, 1929.

(a) Statistics—

Number of new houses erected during the year:—

(a) Total (including numbers given separately under (b)).

(i) By the Local Authority	128
(ii) By other Local Authorities	nil
(iii) By other bodies and persons	45

(b) With State assistance under the Housing Acts.

(1) By the Local Authority.

(a) For the purpose of Part II of the Act of 1925	nil
(b) For the purpose of Part III of the Act of 1925 ...	nil
(c) For other purposes	nil

(2) By other bodies or persons

1. Inspection of dwelling houses during the year—

	Houses, Inspections.	
(1) Total number of dwelling houses inspected (under the Public Health or Housing Acts) and the number of inspections made	2090	6369

(2) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925, and the number of inspections made	150	1457
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	3	
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	1855	

2. Remedy of defects during the year without service of formal notices :

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	1589
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3. Action under Statutory Powers during the year :—

A.—Proceedings under Section 3 of the Housing Act, 1925 :

(1) Number of dwelling houses in respect of which notices were served requiring repairs	4
(2) Number of dwelling houses which were rendered fit after service of formal notices :—	
(a) By owners	4
(b) By Local Authority in default of owners ...	nil
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	nil

B.—Proceedings under Public Health Acts :

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	174
(2) Number of dwelling houses in which defects were remedied after service of formal notices :—	
(a) By Owners	173
(b) By Local Authority in default of owners ...	nil

C.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925 :

(1) Number of representations made with a view to the making of Closing Orders	3
(2) Number of dwelling houses in respect of which Closing Orders were made	3
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	nil

(4) Number of dwelling houses in respect of which Demolition Orders were made	nil
(5) Number of dwelling houses demolished in pursuance of Demolition Orders	nil

4. Number of houses owned by the Local Authority distinguishing those built in the last two years and held under—

(1) Part III of the Housing Act, 1925	370
(2) Part II of the Housing Act, 1925	nil
(3) Other powers Housing (Financial Provisions) Act, 1924	50
(4) Total houses built by Local Authority	933
(5) Houses built by Local Authority during last two years	420
(6) Houses built and sold during last two years	275
(7) Houses owned by Local Authority	658

(b) *Housing Conditions.*

1. General observations as to housing conditions.

Of the 9,197 houses in Chester, approximately 6,645 are houses for the working classes. About 60 per cent. of those 6,645 houses have three bedrooms and about 40 per cent. two bedrooms with living room. There are roughly 300 houses of two rooms, i.e., one bedroom and one sitting room. The average age of the houses is about 60 years, and the majority fall short of the standard set in the Manual of Unfit Houses. Most houses have, however, separate water supply and sanitary accommodation. The prevailing form of defect is general dilapidation, defective plaster and floors, windows which will not open, and lack of external pointing and absence of damp proof course. There is much overcrowding, particularly in the two bedroom houses, both from a moral and physical point of view. We are instructed to use the population given as at the middle of 1929 which was 40,920. This figure divided by the number of houses gives an average of 4.4 persons per house. This would indicate that there is little lack of housing accommodation. The fact is, however, that there is marked overcrowding, and the inference is that the estimated population is much understated and has been so for some years. Under the present circumstances it is difficult to give an accurate estimate of our housing needs.

2. Sufficiency of supply of houses.

(a) Extent of shortage.—The Housing Manager estimates that there are 500 families living in lodgings and wanting houses of their own. In the examination of 739 houses of the working classes examined for various reasons, the average number of persons per house was 4.89. To reduce this to 4.5 per house we should have 9,994 houses

instead of the 9,197 which we have—a shortage of 797. The 500 of the Housing Manager represents only those houses where two families are living, the 797 includes also those houses occupied by families too large for them. It is urgently necessary that the policy of building houses for sale should be abandoned, and that houses to let should be made available. The movement of tenants consequent on the vacation of a house by a person purchasing one does not appear to have eased the situation for the working man. Now that there is a prospect of houses being let at lower rents every endeavour should be made to make them available for those not in a position to purchase.

(b) There does not appear to have been any important change in population in recent years nor is any important change anticipated. Chester had been growing slowly up to the census of 1921, and although the growth may have been less since then the large reduction in the population figure made in recent years by the Registrar General is not supported by local facts within my knowledge. Chester has abundant land suitable for industrial purposes, and has excellent and varied means of transport, so it is possible there may be a large increase of population in the future.

(c) There are no suitable building sites north of the river left within our boundaries. South of the river we have ground for about 800 houses including those at present being contracted for. It is very doubtful if more land is available within our own area.

3. Overcrowding.

(a) Extent.—The House Property Manager estimates that there are 500 families living in lodgings. Those are in one or two rooms and practically all living in overcrowded conditions. Under the heading “Sufficiency of supply of houses” I have given some figures which will indicate the extent of overcrowding. The average number of persons per house amongst workmen’s dwellings is 4.89; in one district as high as 5.29.

(b) Causes.—Many of those families living in lodgings are paying rents for their one or two rooms practically equal to the rent of a non-parlour Corporation house. They are living in discomfort with a complete lack of convenience, and would be willing, are in fact anxious, to get a house for themselves if such were available. Some are paying rents which they cannot really afford. The cause of overcrowding is the lack of suitable houses more than the inability to pay the rent. Many of the families where the principal bread winner is out of work would not at present be able to pay the rent of a Corporation house, but in normal times many would.

(e) Owing to the total lack of suitable accommodation, it is found useless to take any action. In some cases of serious overcrowding, where a lodger or second family is causing the trouble, a notice to abate has been served, but generally it merely leads to the overcrowding of another house.

4. Fitness of houses.

(a) We have found no particular difficulty in working under the Public Health Acts or under Section 3 of the Housing Act, 1925.

(b) The measures taken or suggested for the gradual improvement of insanitary property and the provision of new houses are as follows :—

Approximately 1,300 or 1,500 houses are inspected every year under Public Health or Housing Acts. Those houses, where necessary, are brought up to the standard required by the Manual of Unfit Houses, the great majority being dealt with by informal action. Where there is financial strain, the owner is allowed to spread the work over a period of months and this procedure is found to be the most satisfactory. In a few instances formal action has to be taken, and in those cases the work has to be carried out in a specified time.

As to the provision of new houses, the capacity of the Local Authority to build new houses seems to be limited to about 160 per annum, or 800 in the next five years. It is proposed that the 160 should be allotted roughly in the proportion of 50 for rehousing families, and 110 for those at present without houses. This appears to be a just division as those in lodgings have no comforts or amenities, while the others have at least a home of their own. The allocation of only 50 for rehousing purposes will raise practical difficulties in dealing with clearance areas, but those will be overcome as they arise.

The comparatively small number of houses which we can build in a year, and the more pressing need of providing houses for those without, and rehousing those in defective houses, will prevent us doing anything in the way of improvement areas during the next five years.

(c) Extent to which houses have not an adequate internal water supply.—It is estimated that 180 houses have not an internal private water supply. In those cases the water supply is in the yard, i.e., private but not internal. In addition to those, there are 532 houses in Courts where there is generally one or more stand pipes for the use of several houses. In many of those houses the only available space for a sink is in the living room, an unsatisfactory position.

(d) Except for houses in Courts, all houses have private w.c. accommodation. Of those Court houses approximately 125 have separate accommodation in outbuildings. For the 532 houses in Courts, 407 closets are provided. It is generally arranged that those 'common' closets are allotted one for two families, each family having a key.

5. Unhealthy Areas.

Although the density of houses in Chester is great, there are only two areas of considerable relative size that ought to be treated as clearance areas, affecting together between 300 and 400 houses. There are, however, other 6 or 7 smaller patches which ought to be cleared out, affecting from 10 to 60 houses each—about 250 houses in all. The clearance areas together would affect between 500 and 600 houses.

The other congested parts of the town, about 4 in number could be dealt with as improvement areas. To reduce the house density in those areas to 20 per acre will require the demolition of 750 houses, and as about 550 will be demolished in clearance areas the total houses required to modernise the town is about 1,300.

In the absence of reliable population figures it is difficult to say how many ought to be provided for natural increase in the population. Complaints are occasionally received in relation to individual houses, but no complaint or representation has been made regarding an area. The areas which are regarded as unhealthy by reason of their general dilapidation, want of sanitary accommodation, or of their crowded condition will be dealt with as alternative accommodation

becomes available. The Local Authority are at present arranging for the erection of 258 houses of which 163 will be non-parlour houses. This will enable something to be done to lessen overcrowding.

6. Bye-laws relating to houses, houses let in lodgings, and to tents, vans, sheds, etc.

There are no housing bye-laws in Chester. Power has been taken in the Chester Corporation Act, 1929, to make bye-laws dealing with houses let in lodgings, and with tents, vans, sheds, etc. Those bye-laws have not been made yet.

7. General observations on housing matters not already covered.

We have had as yet no experience of the Act of 1930, so its difficulties are yet to meet. There has been no serious difficulty in administering the former Acts. The one great difficulty has been the lack of provision of houses at the lower rents. Provision is now being made for houses which ought to be within the reach of many who are at present paying large rents for one or two rooms.

INSPECTION AND SUPERVISION OF FOOD.

(a) Milk Supply.

There are 14 dairy farms inside the City boundary. One farm has been demolished and the ground used for housing purposes. Those farms are regularly inspected, 59 visits having been made by the Sanitary Staff. The farms and dairy premises have been kept in a satisfactory condition.

The Municipal Veterinary Officer visits each farm at least twice a year and inspects each individual cow. Where there is doubt as to the condition, samples of milk are taken and submitted to biological examination. Six samples were so taken during the year, but none gave a reaction of the presence of the tubercle bacillus. This procedure entails a waste of at least 6 weeks time and there is much to be said for the veterinary examination of each milch cow on exposure for sale in a market or on private purchase.

There are 72 persons on the register as milk sellers in the City whose dairies are outside our boundaries.

The cleanliness of the milk supply has been improved in recent years. The action largely responsible for this improvement instituted in 1922 is as follows :—

Every week a few—four or five—samples of milk are secured in sterile vessels and submitted to bacteriological examination. The time of milking, time of purchase and temperature on reaching the laboratory are taken. During the year 144 samples were taken for this purpose. On any sample giving a greater count than allowed under the Milk and Dairies Regulations, the vendor, the producer and the medical officer of the district from which the milk comes, are written. The producer also receives a leaflet of instructions on the production of clean milk. It is evident that a number of farmers try to produce clean milk, but some make little or no effort towards this. It is very seldom that a milk fails to show the presence of bacillus coli in 1 c.c. and generally it is present in 0.1 c.c. A number of milk producers do not cool, or effectively cool their milk at the farm. Even although most of the milks are examined within 6 or 7 hours of production this must lead to a considerable multiplication of germs—many more than would be present in a well-cooled milk.

The following short table gives the percentage of bad samples for the last five years :—

Year.	Percentage of Unsatisfactory Samples.
1926	25.4
1927	10.81
1928	11.6
1929	24.2
1930	8.3

In 1930, 8.3 per cent. of the samples examined, contained 200,000 or more germs per cubic centimetre. A very large proportion of the milks, however, contain bacillus coli in 1.0 c.c. or less. For the year the percentage was 85.4, and approximately the same for the preceding four years. This indicates manural contamination and some fault in the production of the milk.

Certified Tuberculin-Tested, Grade A and Pasteurised milk are all sold in the City, but only Grade A and Pasteurised are produced here. The examinations of those milks during the year show that they are carefully produced, particularly the Certified and Grade A. have shown low counts and the absence of bacillus coli in 1.0 c.c.

BACTERIOLOGICAL EXAMINATIONS OF MILK, 1930.

1930. MONTH.	GERMS PER 1 C.C.							Number Letters sent.	BACILLUS COLI.		
	Under 50,000.	50,000 and under 100,000.	100,000 and under 250,000.	200,000 and under 500,000.	500,000 and under 1,000,000.	1,000,000 and over.	Total Examined.		Present in 1'0 c.c. or less.	Present in 1'0 c.c. absent in 0'1 c.c.	Absent in 1'0 c.c. and less.
January	...	...	...	...	...	...	12	...	4	6	2
February	...	...	...	...	...	...	16	1	8	5	3
March	...	...	...	...	...	...	20	...	8	10	2
April	...	...	...	...	...	...	12	...	5	5	2
May	...	...	...	...	...	...	12	1	6	5	1
June	...	...	...	...	...	...	8	1	2	3	3
July	...	...	...	...	...	...	8	...	5	2	1
August	...	...	...	...	...	...	12	8	8	4	...
September	...	...	...	...	...	...	8	...	6	...	2
October	...	...	...	...	...	...	8	...	3	3	2
November	...	...	...	...	...	...	16	1	10	5	1
December	...	...	...	...	...	...	12	...	6	4	2
Totals	...	...	...	...	...	...	144	12	71	52	21
Percentages	...	...	...	...	...	...	...	8.33%	49.31%	36.11%	14.58%

CHEMICAL EXAMINATION OF MILK.

Of 42 samples of milk chemically examined, seven were found to be not genuine, being deficient either in fat, or solids not fat.

Proceedings were taken in one case only where the milk was certified to contain 7.5 per cent. of extraneous water. The case was dismissed. Another sample taken informally was certified to contain 4.8 per cent. of extraneous water and a following up sample was found to contain 4.78 per cent. of extraneous water. Four further following up samples were taken at the farm immediately after the completion of milking. All those samples were found to be deficient in solids not fat, having respectively 8.36, 8.34, 8.38, and 8.41 per cent. solids. The attention of the producer and the retailer was called to the condition of the milk.

The average fat content of the 42 samples was 3.54 per cent. and of solids not fat 8.73 as compared with 3.98 and 8.7 in 1929.

The following table gives the results of the analysis.

Date 1930.	Sample No.	Fat per cent.	Solids not Fat per cent.	Date 1930.	Sample No.	Fat per cent.	Solids not Fat per cent.
Feb. 3	11	3.54	8.90	April 1	37	3.43	9.43
	12	3.44	8.96		38	3.88	8.82
	13	3.43	8.87		39	3.50	8.70
	14	3.06	7.86	" 3	40	2.92	8.10
	15	3.09	8.78	" 4	41	3.31	8.51
	16	4.00	8.76		42	3.14	8.36
" 6	1458	3.64	9.22		43	3.19	8.34
" 24	23	3.48	9.12		44	3.32	8.38
	24	3.90	8.80		45	3.25	8.41
	25	3.68	8.68	June 3	58	3.06	8.70
	26	6.25	8.65		59	3.68	9.02
	27	3.80	8.50		60	3.70	9.02
	28	3.13	8.61		61	3.00	8.78
Mar. 4	29	3.50	8.60		62	3.39	9.01
	30	3.92	8.96		63	3.36	8.90
	31	3.18	8.92	Sept. 23	82	4.12	8.80
	32	3.40	8.80		83	3.70	8.64
	33	3.90	8.86		84	3.36	8.70
April 1	34	3.66	8.70		85	3.44	8.88
	35	3.56	8.90		86	3.22	8.90
	36	3.69	8.09		87	3.72	8.82

Average :—Fat = 3.54%. Solids not Fat = 8.73%.

MILK AND DAIRIES ORDER, 1926.

Details of the work done under this Order are given below:—

Registered Cow-keepers	14
Inspections of Cowsheds	59
Contraventions	6
Contraventions remedied.....	6

Total number of Registered Milk Sellers	117
Registered Dairies (including those attached to Cowsheds)	45
Registered Purveyors of Milk (not occupying dairies in the City) ...	72
Dairy Inspections (City)	88
Contraventions	nil
Nature of Contraventions in Cowsheds—	
Need of limewashing	3
Defective Drains	1
Defective yard paving	1
Water supply	1

Meat.

The number of slaughterhouses remains the same as last year, 8—5 being registered, 2 licensed and the public abattoir. Six of those have been kept in a satisfactory manner, the remaining two in as good a condition as their structure and position would admit. Those two slaughterhouses ought now to be closed on the grounds of dilapidation or situation, or both. The Local Authority has recently purchased a registered slaughterhouse and the land adjoining and have modernised the buildings. Excellent facilities will soon be available for those meat dealers who would be displaced.

The greater concentration of the killing of cattle for food in a limited number of places would lead to considerable saving of time and easier inspection, as light and facilities are better. The work in connection with the public slaughterhouse has been about the same as in recent years.

As mentioned in last year's report the lease of the present premises expires in 1935. It is time that consideration was given to the policy for the future.

Meat marking is now a matter of routine in the public slaughterhouse and is appreciated by the traders.

All animals slaughtered in the various slaughterhouses are stunned by a mechanical killer—generally of the captive bolt type. It is believed that the slaughtermen now accustomed to the use, prefer this method of killing to the old pole axe.

There were 9 tons 18 cwts. 1 qr. 25 lbs. of food condemned during the year.

It was necessary to take proceedings against a Cattle Dealer in respect of a cow which was seized in the Smithfield. The proceedings resulted in the defendant being fined £10.

In 1929, observations were made of the number of ox and sheep livers condemned for the presence of "fluke." During the current year the condemnations on this account were less numerous.

There were no proceedings in respect of contraventions of the Meat Regulations.

The number of animals slaughtered in the Public Abattoir was :—

Cattle	1160
Calves	498
Sheep	8267
Pigs	331
Total ...	10256

In the inspection of foods the following inspections were made—

Slaughterhouses	1356
Butchers shops	285
Fishmongers shops	277
Other shops and stores	313
Total ...	2231

The following is a list of the condemnations with a reason for the action :—

ARTICLES CONDEMNED.	Number.	REASON FOR CONDEMNATION.
BEEF.		
Carcases and offal... ..	24	Generalised Tuberculosis
Portions of carcases and organs ...	285	Localised Tuberculosis
" " " "	109	Parasitic & other conditions
Portion of Carcase	1	Contusion.
MUTTON AND LAMB.		
Carcases and offal	4	Febrile
" " " "	1	Accident during parturition
Organs	193	Parasitic conditions
PORK.		
Carcases and offal	8	Febrile
" " " "	4	Generalised Tuberculosis
" " " "	1	Oedema
Portions of carcases and organs ...	173	Localised Tuberculosis
Organs	11	Parasitic conditions
VEAL.		
Carcases and offal	2	Febrile
" " " "	1	Congenital Tuberculosis
MISCELLANEOUS.		
Cod (lbs. of)	149	Decomposition
Kippers (boxes of)	5	"
Turkey (carcase, etc)	1	"
Sausage (lbs. of)	25	"
Chilled Beef (portion of carcase)...	1	"
Raspberries (Baskets)	20	"

Estimated weight of food stuffs condemned :—9 tons, 18 cwt., 1 qr., 25lbs.

DISEASES OF ANIMALS ACTS, 1894 to 1925.

TUBERCULOSIS ORDER, 1925.

There has been an improvement in the class of cattle brought for sale in Smithfield during the past twelve months.

It has been proved that by sending suspicious cattle back to their farms, under a Notice served in accordance with the Tuberculosis Order, the local trade in slink animals has been considerably reduced. This action not only places the owners of the animals so dealt with to inconvenience, but also mulcts them in the cost of return transport. On the return of the cattle to the farms, they have to be kept until dealt with by the Local Authorities in whose area they are situated. A copy of the Notice served on the owner is sent to the Inspector responsible for carrying out the duties imposed by these Acts, and in several instances the owners of cattle have been prosecuted for failing to give notice of being in possession of a notifiable animal and penalties have been inflicted. A further copy of the notice is also sent to the Minister of Agriculture and Fisheries.

There are two very useful sections in the Chester Corporation Act, 1929, namely, Sections 80 and 81. Section 80 gives us power to remove from the Cattle Sales, on the certificate of Veterinary Surgeon or Medical Officer, any emaciated or diseased animal suspected to be affected with tubercular disease. By Section 81 any animal brought to the Cattle Market of the Corporation, at which animals intended for food are sold, shall be deemed to be deposited for the purpose of sale and intended for food within the meaning of Sections 116 to 119 of the Public Health Act, 1875. As referred to in the "Legal Proceedings taken," one cow was seized under these sections and the owner subsequently fined £10.

There were 19 cases dealt with under the Tuberculosis Order during the year, of which fourteen of the owners were ordered to return their cattle to their farms, and in five cases the animals were slaughtered in the City.

On post mortem examination in three instances, the animals were found to be emaciated by reason of generalised tuberculosis, and in the other two cases, in addition to emaciation, the udders were found to be tubercular.

Six samples of milk were submitted for examination for the presence of tubercle bacillus, and it was certified there was no evidence of tuberculosis in any of the samples.

The dairy stock in the cowsheds within the City is inspected by the Veterinary Surgeon at least twice in the year, and he also makes special examinations on request.

The milk producers very readily take advantage of the services of the Veterinary Surgeon and frequently call on him for advice. We

find there is a possibility of a number of cows being missed by routine inspection as when cattle have ceased to be of use for milk production, they are sold and replaced by other stock. Such changes may take place soon after a visit by the Veterinary Surgeon, and the new stock would be producing milk which is sold to the public without having been examined. Existing legislation does not provide for this contingency, therefore it is desirable that an amendment should be made to the Milk and Dairies (Consolidated) Act, 1915, the Milk and Dairies Order, 1926, and the Tuberculosis Order, 1925. The amendment required is to make compulsory that all dairy cattle added to the stock of a milk producer shall be notified by the purchaser to the Medical Officer of Health within 48 hours from the time of purchase, and that milk from such animals shall not be used for human consumption until after inspection of the cattle by the Local Authority's Veterinary Surgeon.

SALE OF FOOD AND DRUGS (ADULTERATION) ACT, 1928.

During the year the following articles of food were submitted to the Public Analyst for analysis:—

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Article.	Samples Taken	No. formally.	No. informally.	No. Genuine.	No. not Genuine.
Milk	42	37	5	35	7
Sweets	10	...	10	10	...
Tea	8	6	2	5	3
Jams	6	...	6	6	...
Ice Cream	6	...	6	6	...
Self-Raising Flour ...	4	...	4	4	...
Butter	4	4	...	4	...
Cream	4	...	4	4	...
Rice	4	...	4	4	...
Bread and Butter ...	3	3	...	3	...
Baking Powder	2	...	2	2	...
Dried Fruit	2	2	...	2	...
White Pepper	2	2	...	2	...
Coffee	2	2	...	2	...
Peas	2	...	2	2	...
Condensed Milk	2	...	2	2	...
Sultanas	2	2	...	2	...
Ground Ginger	2	2	...	2	...
Malt Vinegar... ..	2	2	...	1	1
Margarine	2	2	...	2	...
Mincemeat	2	2	...	2	...
Whisky	2	2	...	2	...
Rum	2	2	...	2	...
Port Wine	2	2	...	2	...
Salmon and Shrimp Paste ...	1	...	1	1	...
Chicken and Ham Paste ...	1	...	1	1	...
Totals	121	72	49	110	11

There were 121 samples examined, of which 11 or 9.09 per cent. were certified to be not genuine. This is approximately one per cent. more than in 1929 when it was 8.1 per cent. The increase is due to three samples of tea which contained 0.04 per cent., 0.003 per cent., and 0.005 per cent. metallic iron respectively.

Of the 42 samples of milk examined, 7 or 16.6 per cent. were found to be below the limits prescribed in the Sale of Milk Regulations, 1901, and 1912. It was only found necessary to institute proceedings in respect of one of the milk samples. All the samples were found to be free from sediment, colouring matter and preservatives.

Proceedings were instituted in one case where artificial vinegar was sold in the place of malt vinegar. In this instance the Public Health Committee considered it desirable, in the interests of the public, that proceedings should be taken so that publicity would disclose the difference between malt vinegar and the artificial product.

The remaining samples do not call for special comment.

The following table gives particulars of the samples found "not genuine" and the action taken in each case:—

No. of Sample.	Name of Article.	Result of Analysis.	Result of Legal Proceedings or action taken by the Public Health Committee.
2	Tea ..	Found to contain 0.04 % Metallic Iron ..	After considering the report of the Public Analyst the Public Health Committee resolved to take no further action in respect to these samples.
9	Tea ..	Found to contain 0.003 % Metallic Iron ..	
10	Tea ..	Found to contain 0.005 % Metallic Iron ..	
14	Milk ..	Certified to contain 7.5 % ex- traneous water ..	Proceedings instituted—case dismissed.
36	Milk ..	Certified to contain 4.8 % ex- traneous water ..	Sample No. 40 was taken "in course of delivery" to the vendor of Sample No. 36. Four "appeal to the cow" samples, numbered 42, 43, 44 and 45 were then obtained, and found to be deficient in solids not fat. The Public Health Committee, after careful consideration, resolved to call the attention of the retailer and the producer of these samples to the results of analyses.
40	Milk ..	Certified to contain 4.7 % ex- traneous water ..	
42	Milk ..	This sample contained only 8.36 % of solids not fat ..	
43	Milk ..	This sample contained only 8.34 % of solids not fat ..	
44	Milk ..	This sample contained only 8.38 of solids not fat ..	
45	Milk ..	This sample contained only 8.41 of solids not fat ..	Proceedings instituted—case dismissed on payment of costs, 19/6.
110	Malt Vinegar	Consisted of 94 per cent. Arti- ficial Vinegar ..	

I append the report of the City Analyst for the year :—
To the Chairman and Members of the Public Health Committee.

SALE OF FOOD AND DRUGS ACT.

Gentlemen,

I have the honour to inform you that during the past year I received 121 samples for analysis as follows :—Milks 42, Teas 8, Jams 6, Self-Raising Flours 4, Baking Powders 2, Dried Fruits 2, White Pepper 2, Butters 4, Coffees 2, Sweets 10, Creams 4, Ice Cream 6, Peas 2, Condensed Milks 2, Rice 4, Fish Paste 1, Meat Paste 1, Bread and Butter 3, Sultanas 2, Ground Ginger 2, Malt Vinegar 2, Margarines 2, Mincemeat 2, Whisky 2, Rum 2, Port Wine 2.

Milk sample No. 14 was found to contain 4.8 per cent. of added water; a sample taken on delivery in the County was found to be genuine.

Milk sample No. 36 contained 4.8 per cent. of extraneous water; a sample taken on delivery contained 4.7 per cent. of extraneous water. Five appeal to cow samples were taken to compare with these samples and in four of them it was found that the cows were giving milk below the standard.

All the milk samples were free from preservatives, dirty sediment and artificial colouring matters.

Three samples of Tea contained very small amounts of iron filings from 0.04 per cent. to 0.003 per cent.

One sample of malt vinegar consisted almost entirely of artificial vinegar.

All the other samples received were genuine.

Yours faithfully,

W. FOULKES LOWE, A.R.S.M., F.I.C.,
City Analyst.

(d) *Chemical and Bacteriological Examination of Food*.—The chemical examination of food is done by the City Analyst in his own laboratory, and the purity of various articles reported upon. The bacteriological examination of milk is done in the Municipal Laboratory. In cases of suspected food poisoning, samples of the suspected food and other material are sent to Pathological Dept., Bristol University.

(e) *Nutrition*.—Opportunity has been taken during the year to address various organisations both on questions of nutrition and on the prevention of disease.

PREVALENCE AND CONTROL OVER INFECTIOUS AND OTHER DISEASES.

General.

The outstanding feature of the year has been the prevalence of diphtheria. For some years prior to 1929 it was neither very prevalent nor very severe in type. In the Autumn of 1929 it assumed a very virulent form, and hæmorrhagic cases occurred while secondary streptococcal infections were common. With the increase in virulence greater prevalence occurred, and it is still more than twice as frequent as it was a few years ago. The virulence has lessened, but some form of paralysis during convalescence is the rule. No particular part of the town or any particular school was effected and the surrounding country shared in the increased prevalence and severity. We have continued to swab and examine all known contacts including any class in school when there appeared a possibility of the infection being there. Diphtheria ante-toxin can be had free by any practitioner for use in a necessitous case. This is seldom utilized. The rule is for the practitioner to notify, and removal to hospital takes place within a few hours. In a few cases the use of anti-toxin in a doubtful diagnosis would have saved a day, but generally those cases are sent into hospital and it has been very seldom that such action was not justified by events.

With the intention of getting a larger proportion of our population rendered immune, sanction was given last Autumn to offer immunisation to those willing to accept it. At the end of the year there had been but poor response, but since then a better response has been

obtained by calling a meeting of the parents of pupils attending a school and speaking to them on the subject and at the same time offering immunisation of the younger children. By the first quarter of the year nearly 200 children had been immunised and about an equal number Schick tested and found to be immune. This is a small proportion of our population under 15 years of age and is not likely to noticeably influence the incidence of diphtheria. It will also be difficult probably to get a sufficient number of our younger population made immune in succeeding years.

Scarlet Fever has had about its usual non-epidemic prevalence and continues of a mild type showing few complications. Anti-streptococcal serum has been given in two or three of the more marked cases of scarlet fever, but it is impossible to say that such treatment shortens the stay in hospital. There is no sure criterion of freedom of infection, and the only return case this year was from a case so mild as to be doubtful, but was kept under observation for 32 days, having presented no signs of scarlet fever. A sister developed undoubted scarlet fever three days after the patient went home. No immunisation against scarlet fever has been done except with members of the Nursing Staff at the Isolation Hospital.

There has not been a case of smallpox notified during the year, but we continue to examine all notified cases of chickenpox in the hope that we may not miss a case of smallpox.

There has been no encephalitis lethargica or cerebro spinal fever.

No connection between scarlet fever and puerperal fever has been noted, but scarlet fever is so mild at present that it may easily be missed and may have been connected with puerperal fever. An attempt was made to find hæmolytic streptococci in the throats of a case of puerperal fever and the immediate attendants but without success.

No case of malaria or dysentery has been notified.

Pneumonia is one of the common causes of death and was the cause in 55 cases this year. Twenty-four of those deaths were amongst

children under 15 years. They were practically all broncho-pneumonic in character, and the one most common feature (almost every case) was overcrowding. Overcrowding, however, is so common that it may or may not be a contributory cause. Essential conditions of overcrowding are frequently present when there is no necessity for them. Constantly closed windows and doors, and a room that is not over clean, has a vitiated atmosphere closely akin to that of overcrowding. Such a room is a greater danger than an overcrowded room with windows open and kept reasonably clean.

For some years back, complicated or severe cases of measles and whooping cough have been admitted to the Isolation Hospital. The arrangement is not entirely satisfactory as the cases are not sent to hospital until the patient has been seriously ill for some days. While continuing this arrangement, earlier admission is also being urged along with a more intense pressure in the homes to get more hygienic conditions for nursing all such cases.

The Chester District Nursing Association help materially in this work during times of epidemic, and are paid a fee of £50 per annum.

The Municipal Laboratory is freely used for the examination of throat and nose swabs and sputa from patients under treatment either in hospital or dispensary, both for diagnostic purposes or as a guide in treatment or discharge.

Where a Wasserman Test is thought advisable, the specimen is sent to the Laboratory at the Royal Infirmary.

The Medical Officer of Health has not been called upon to take any action under the Public Health (Smallpox Prevention) Regulations, 1917, and has not done any vaccination or re-vaccination.

Judging from the work of the School Medical Service, non-notifiable infectious diseases were not noticeably prevalent during the year—with the single exception of measles an epidemic of which had started at the end of 1929 and reached its height at the end of March, 1930. During the Autumn months, influenza of a mild type was very

prevalent and was characterised by relapse after two or three days' convalescence. Although very wide spread, it was fatal in only three cases during the year.

None of the following diseases were met with during the year : locally contracted anthrax, epidemic jaundice, undulant fever or psittacosis. Rheumatic fever caused one death.

Cleansing and Disinfection of Verminous Persons and their belongings.

A shampoo station is situated at the School Clinic and is freely used in the cleansing of school children. Where disinfection is necessary, the clothing and bedding are taken to the Isolation Hospital and disinfected there. Cases of scabies are treated there and generally detained for three or four days in the case of children, and adults come for a daily disinfecting bath on three successive days. In the case of verminous houses they are either cleansed and sprayed with a disinfectant or, where necessary, skirting boards and picture rails removed and the room or rooms treated with a very strong hot disinfectant of special composition.

TUBERCULOSIS, 1930.

Particulars of new cases of tuberculosis and mortality during 1930 are given below:—

Age Periods.	NEW CASES.				DEATHS.			
	Pulmonary		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 ...	1	0	1	0	1	0	1	1
1 to 5 ...	1	0	2	0	0	1	2	1
5 to 10 ...	0	1	3	0	0	0	0	0
10 to 15 ...	1	1	1	1	0	0	0	0
15 to 20 ...	1	3	0	0	2	1	0	0
20 to 25 ...	2	3	0	0	0	2	0	1
25 to 35 ...	2	2	0	1	6	1	0	0
35 to 45 ...	9	5	1	0	7	4	0	0
45 to 55 ...	2	1	0	1	6	0	1	1
55 to 65 ...	5	1	0	0	4	1	0	0
65 and upwards	0	0	0	0	2	0	0	0
Totals ...	24	17	8	3	28	10	4	4
1930	41		11		38		8	

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS)
REGULATIONS, 1925.

There has been no occasion to act on this regulation.

PUBLIC HEALTH ACT, 1925, SECTION 62.

So far there has been no occasion to put this Section into force.

CITY & COUNTY OF THE CITY OF CHESTER.—Causes of, and Ages at Death during the Year 1930.

52

CAUSES OF DEATH.

		NET DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" OCCURRING WITHIN OR WITHOUT THE DISTRICT.								WHETHER	
		At all Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and under 75.	75 and up-wards.
1	Enteric Fever	1	...	...	...	...	...	...	1	...	...
2	Small Pox	...	...	...	...	...	...	...	...	...	...
3	Measles	19	5	8	3	2	...	...	1	...	...
4	Scarlet Fever	1	...	...	...	...	...	...	1	...	...
5	Whooping Cough	1	...	...	1	...	...	...	...	...	...
6	Diphtheria	12	...	...	5	7	...	...	...	...	...
7	Influenza	3	...	...	...	...	...	...	2	...	1
8	Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...
9	Meningococcal Meningitis	...	...	...	...	...	...	...	...	...	...
10	Tuberculosis of Respiratory System	38	1	2	...	...	5	17	11	2	...
11	Other Tuberculous Disease	9	2	1	2	...	1	1	2	...	...
12	Cancer, Malignant Disease	51	1	...	...	...	...	...	18	25	6
13	Rheumatic Fever	1	...	...	...	1	...	...	...	...	...
14	Diabetes	3	...	...	...	...	...	1	1	...	...
15	Cerebral Haemorrhage, etc.	23	...	...	...	...	...	...	12	5	6
16	Heart Disease	115	...	...	...	...	2	5	35	45	28
17	Arterio-sclerosis	39	...	...	...	...	...	1	8	15	16
18	Bronchitis	20	1	6	...	...	...	...	5	6	7
19	Pneumonia (all forms)	55	9	...	4	...	2	5	15	9	5
20	Other Respiratory Diseases	4	...	...	...	...	...	3	4	...	...
21	Ulcer of Stomach or Duodenum	7	...	...	...	...	...	...	2	...	2
22	Diarrhoea, etc.	5	4	...	...	...	1	...	...	...	...
23	Appendicitis and Typhlitis	6	...	1	...	...	1	1	1	2	...
24	Cirrhosis of Liver	2	...	...	...	...	...	1	1	...	...
25	Acute and Chronic Nephritis	24	...	...	...	...	...	...	9	11	4
26	Puerperal Sepsis	...	...	...	...	...	...	...	...	...	...
27	Other Accidents & Diseases of Pregnancy & Parturition	4	...	...	...	...	2	2	...	...	...
28	Congenital Debility and Malformation, including Premature Birth	18	18	...	...	...	...	...	...	...	...
29	Suicide	10	...	...	...	...	3	...	2	2	...
30	Other Deaths from Violence	23	1	3	...	1	...	5	5	5	3
31	Other Defined Diseases	91	6	3	3	5	2	4	17	25	27
32	Causes ill-defined or unknown	...	...	...	...	...	...	...	...	...	...
Totals		585	48	20	21	16	19	50	153	153	105

Infant Mortality during the Year 1930.

CAUSES OF DEATH.	All Causes { Certified. Uncertified.						Total Deaths 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Total Deaths under 1 Year
	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks								
Snail-pox ..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken pox ..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough ..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup ..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..
Abdominal Tuberculosis (b) ..	..	..	..	..	..	..	..	..	..	..	..	..
Other Tuberculosis Diseases ..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions ..	1	..	..	1	2	..	..	..	..	..	..	..
Laryngitis ..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis ..	1	..	..	..	1	..	..	..	..	..	..	..
Pneumonia (all forms) ..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea ..	..	..	..	..	..	..	..	..	..	..	..	..
Enteritis ..	..	..	..	1	1	..	..	..	..	..	..	..
Cas'riitis ..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation, Overlying ..	..	..	1	..	1	..	..	..	..	..	..	..
Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..
Atelectasis ..	1	..	..	..	..	..	..	..	..	..	..	..
Congenital Malformations (c) ..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Births ..	7	1	..	1	9	..	..	..	..	..	..	..
Atrophy, Debility and Marasmus ..	..	..	1	..	1	4	1	1	..	..	..	..
Other Causes ..	2	..	1	..	3	2	..	..	..	..	..	..
Totals ..	12	1	3	3	19	9	6	5	9	48		

Nett Births in the year, legitimate, 638; illegitimate, 29.

Nett Deaths in the year of legitimate infants, 45; illegitimate infants, 3.

Vital Statistics of Whole District during 1930 and previous years.

YEAR	Population estimated to Middle of each Year	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number	Nett		Number	Rate	Of Non-residents registered in the District	Of Residents not registered in the District	Under 1 Year of Age		At all Ages	
			Number †	Rate					Number †	Rate per 1000 Nett Births	Number †	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1921	41,407	882	895	21.63	595	14.36	91	81	79	88.26	585	14.12
1922	41,451	897	865	20.86	608	14.66	113	77	68	78.6	572	13.79
1923	41,610	829	800	19.22	600	14.41	132	78	69	86.2	546	13.12
1924	41,932	835	816	19.46	578	13.78	116	115	73	89.46	577	13.76
1925	41,922	869	851	20.30	593	14.12	155	128	61	71.6	566	13.5
1926	41,913	873	836	19.94	569	13.31	136	113	67	80.0	546	13.0
1927	42,200	764	697	16.51	552	13.08	139	113	49	70.30	526	12.46
1928	40,982	791	696	16.9	554	13.51	190	103	41	58.9	467	16.8
1929	40,920	805	707	17.25	689	16.83	211	148	55	77.7	626	14.3
1930	40,910	798	667	16.3	616	15.5	172	141	48	71.96	585	13.60

Area of District in acres (land and inland water), 2,862

No. of inhabited houses, 9,197. Average No. of persons per house, 4.4.

* Total deaths occurring in Chester whether of residents or non-residents.

† Births and deaths corrected for those births and deaths properly belonging to Chester, but occurring outside the District, or occurring in the District but properly belong outside.

Administration of the Factory and Workshop Acts, 1901 & 1907

IN CONNECTION WITH

Factories, Workshops, Laundries, Workplaces, and Homework.

1. INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF
NUISANCES.

Premises. (1)	Number of		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
Factories (including Factory Laundries) ...	97	1	—
Workshops (including Workshop Laundries) ...	152	7	—
Workplaces (other than Outworkers' premises)	—	—	—
Total	249	8	—

2. DEFECTS FOUND.

Particulars. (1)	No. of Defects.			Number of Prosecu- tions. (5)
	Found (2)	Remed'd (3)	Referred to H.M. Inspect'r (4)	
Nuisances under the Public Health Acts—				
Want of Cleanliness	6	6	—	—
Want of Ventilation	2	2	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other Nuisances	—	—	—	—
Sanitary accommodation { insufficient	3	3	—	—
{ unsuitable or defective	4	4	—	—
{ not separate for sexes	1	1	—	—
Offences under the Factory & Workshop Act :				
Other Offences	—	—	—	—
Total	16	16	Nil.	Nil

OUTWORK IN UNWHOLESOME PREMISES.

SECTION 108.

Nature of Work. (1)	Instances. (2)	Notices Served. (3)	Prosecutions (4)
Wearing Apparel.—			
Making, &c.	Nil	Nil	Nil
Cleaning and Washing	"	"	"

